

## ABSTRACT

A lithographic apparatus is disclosed. The lithographic apparatus includes an illumination system that provides a beam of radiation, and a support structure that supports a patterning structure. The patterning structure is configured to impart the beam of radiation with a pattern in its cross-section. The apparatus also includes a substrate support that supports a substrate, and a projection system that projects the patterned beam onto a target portion of the substrate. The illumination system includes a radiation-production system that produces extreme ultra-violet radiation, and a radiation-collection system that collects extreme ultra-violet radiation. Particles that are produced as a by-product of extreme ultra-violet radiation production move substantially in a particle-movement direction. The radiation-collection system is arranged to collect extreme ultra-violet radiation which radiates in a collection-direction, which is substantially different from the particle-movement direction.